AMENDMENTS TO CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A data carrier having a semiconductor chip ~~(5)~~ with at least one memory containing an operating program which is able to ~~execute~~ carry out multiple executions of at least one operation (h), said multiple executions including a first execution of said operation (h) and at least one new execution of said operation (h), ~~the execution~~ each of said multiple executions of the operation (h) requiring input data (x) and ~~the execution of the operation (h)~~ generating output data (y), characterized in that

the operation (h) is disguised before ~~its~~ each said new execution to obtain a new disguised operation (h_{RI}) that is a different operation than the operation (h), and

the new disguised operation (h_{RI}) is executed with new disguised input data,~~ and~~

wherein a random component is used in each new ~~the~~ disguising of the operation (h) and the input data (x), and

wherein each new disguising of the operation (h) and the input data (x) is coordinated such that the execution of the new disguised operation (h_{RI}) with new disguised input data yields output data (y) identical with the output data (y) determined upon execution of the operation (h) with input data (x),

whereby disguising said operation (h) before each new execution prevents analysis of said operation (h) and exposure of secret information about said semiconductor chip should a potential attacker intercept signal patterns generated during execution of said disguised operation (h_{RI}).

2. (Currently Amended) A data carrier according to claim 1, characterized in that at least one random number (R_I) enters into the determination of the new disguised operation (h_{RI}) and the new disguised input data $(x \otimes R_I)$.

3. (Currently Amended) A data carrier according to claim 1, characterized in that the new disguised operation (h_{RI}) is generated from the operation (h) with the aid of XOR operations and the new disguised input data is generated from the input data (x) with the aid of XOR operations.

4. (Canceled)

5. (Currently Amended) A data carrier according to claim ~~4~~ 1, characterized in that at least two disguised operations (h_{RI}, h_{RI}) are permanently stored in the data carrier in advance and one of the stored disguised operations (h_{RI}, h_{RI}) is selected randomly as the new disguised operation when ~~a~~ the new disguised operation is to be executed.

6. (Currently Amended) A data carrier according to claim 1, characterized in that the new disguised operation (h_{RI}) is recalculated before its execution and the at least one random number (R_I) is redetermined for said calculation.

7. (Previously Presented) A data carrier according to claim 1, characterized in that the operation (h) is realized by a table stored in the data carrier which establishes an association between the input data (x) and the output data (y).

8 (Original) A data carrier according to claim 7, characterized in that the disguising of the input data (x) contained in the table is effected by combination with the at least one random number (R_I).

9. (Currently Amended) A data carrier having a semiconductor chip (5) with at least one memory containing an operating program which is able to ~~execute~~ carry out multiple executions of at least one operation *(h)*, said multiple executions including a first execution of said operation *(h)* and at least one new execution of said operation *(h)*, ~~the execution~~ each of said multiple executions of the operation *(h)* requiring input data *(x)* and ~~the execution of the operation *(h)*~~ generating output data *(y)*, characterized in that

the operation *(h)* is disguised before ~~its~~ each said new execution to obtain a new disguised operation (h_{R1}) that is a different operation than the operation *(h)*,

the new disguised operation (h_{R1}) is executed with new disguised input data ~~to obtain a disguised operation (h_{R1}) that is a different operation than the operation *(h)*~~,

wherein a random component is used in each new ~~the~~ disguising of the operation *(h)* and the input data *(x)*, and the new disguising of the operation *(h)* and the input data *(x)* is coordinated such that the execution of the new disguised operation (h_{R1R2}) with new disguised input data yields new disguised output data which are disguised relative to the output data *(y)* determined upon execution of the operation *(h)* with input data (x), and

the output data *(y)* can be determined from the new disguised output data with the aid of data (R_2) used for disguising the operation *(h)*,

whereby disguising said operation *(h)* before each new execution prevents analysis of said operation *(h)* and exposure of secret information about said semiconductor chip should a potential attacker intercept signal patterns generated during execution of said new disguised operation (h_{R1}).

10. (Currently Amended) A data carrier according to claim 9, characterized in that at least one random number (R_1) enters into the determination of the new disguised input data ($x \otimes R_1$) and at least two random numbers (R_1, R_2) enter into the determination of the new disguised operations (h_{R1R2}).

11. (Currently Amended) A data carrier according to claim 9, characterized in that the new disguised operation *(h_{R1R2})* is generated from the input data *(x)* with the aid of XOR operations and the new disguised input data is generated from the input data (x) with the aid of XOR operations.

12. (Canceled)

13. (Currently Amended) A data carrier according to claim 12, characterized in that at least two disguised operations *(h_{R1R2}, $h_{R1'R2'}$)* are permanently stored in the data carrier in advance and one of the stored disguised operations *(h_{R1R2}, $h_{R1'R2'}$)* is selected randomly as the new disguised operation when ~~a~~the new disguised operation is to be executed.

14. (Currently Amended) A data carrier according to claim 13, characterized in that the random numbers *(R_1, R_2)* for determining the first disguised operation *(h_{R1R2})* are inverse to the random numbers *(R_1', R_2')* for determining the second disguised operation *($h_{R1'R2'}$)* with respect to the combination used for determining the new disguised operations *(h_{R1R2}, $h_{R1'R2'}$)*.

15. (Currently Amended) A data carrier according to claim 9, characterized in that the new disguised operation *(h_{R1R2})* is recalculated before its execution and the random numbers *(R_1, R_2)* are redetermined for said calculation.

16. (Previously Presented). A data carrier according to claim 9, characterized in that the operation *(h)* is realized by a table stored in the data carrier which establishes an association between the input data *(x)* and the output data *(y)*.

17. (Original) A data carrier according to claim 16, characterized in that the disguising of the input data *(x)* contained in the table is effected by combination with the at least one random number *(R_1)* and the disguising of the output data *(y)* contained in the table is effected by combination with the at least one further random number *(R_2)*.

18. (Previously Presented) A data carrier according to claim 1, characterized in that the operation *(h)* is a nonlinear operation with respect to the combination used for disguising the operation *(h)*.